

# Notice of Allowability

Application No.

10/510,004

Examiner

Anastasia Midkiff

Applicant(s)

BATHE ET AL.

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## -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to RCE filed 09 March 2006.
2. ☒ The allowed claim(s) is/are 1,3-7 and 9-18.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
  - \* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

### Attachment(s)

- |   |  |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)  | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment                               |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance   |
|   | 9. <input type="checkbox"/> Other _____.   |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 09 March 2006 has been entered.

### ***Allowable Subject Matter***

Claims 1, 3-7, and 9-18 are allowed.

With respect to independent Claim 1, the best prior art of record discloses a device for generating x-rays comprising many of the features of the claimed invention, including an electron-emitting source cathode, a carrier which is rotatable about an axis which generates x-rays as a result of the incidence of said electrons upon the material on said carrier, a heat absorbing member arranged between said source and said carrier, a cooling system which is in thermal connection with said heat absorbing member, wherein a rate of heat transfer via said thermal connection is substantially larger than a rate of heat absorption by said heat absorbing member, and wherein said thermal connection comprises a thermal barrier which limits said rate of heat transfer by virtue of the materials comprising said barrier and said absorbing member, occurring via

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said thermal connection, per unit of temperature difference between said cooling system and said heat absorbing member, in a predetermined manner.

However, the prior art fails to teach or fairly suggest a device for generating x-rays wherein the thermal barrier comprises a vacuum gap, said gap present between radiant heat transferring surfaces of said heat absorbing member and of said cooling system in the manner required by Claim 1.

Claims 3-7, 9, and 10 are allowed based on their dependency upon Claim 1.

With respect to independent Claims 11 and 13, the best prior art of record discloses a device for generating x-rays comprising many of the features of the claimed invention, including an electron-emitting source cathode, a carrier which is rotatable about an axis which generates x-rays as a result of the incidence of said electrons upon the material on said carrier, a heat absorbing member arranged between said source and said carrier such that substantially all of backscatter radiation strikes the surface of the heat absorbing member, a cooling system which is in thermal connection with said heat absorbing member, wherein said thermal connection comprises a thermal barrier which limits said rate of heat transfer in a predetermined manner, and wherein the thermal barrier is comprised of a different material than that which comprises cooling system.

However, the prior art fails to teach or fairly suggest a device for generating x-rays wherein the cooling system comprises a separate and distinct component from said thermal connect, and through which cooling fluid flows, in the manner required by Claims 11 and 13.

Claims 12 and 14-18 are allowed based on their dependency upon Claims 11 and 13, respectively.

### ***Response to Arguments***

Applicant's arguments, see Applicant Remarks, filed 09 March 2006, with respect to Claim 11 have been fully considered and are persuasive. The rejection of Claim 11 under 35 U.S.C. 102(b) has been withdrawn.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anastasia Midkiff whose telephone number is 571-272-5053. The examiner can normally be reached on M-F 7-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Glick can be reached on 571-272-2490. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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3/13/06

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**EDWARD J. GLICK  
SUPERVISORY PATENT EXAMINER**

*JPB*  
*3/13/06*